

CLAIMS

What is claimed is:

1. A method of converting and reproducing in a sequential manner, a digital image comprising the steps of:

a) via a system processor, sequentially downloading information representing said digital image to a special purpose digital device;

b) via an output device directly coupled to said special purpose digital device via a non-system bus coupling, outputting digital image information in a user-perceivable form;

c) directly controlling the operation of said output device by said special purpose digital device; and

d) if necessary, contemporaneously with step a), said system processor performing calculations needed to define at least a portion of said digital image.

2. The method of Claim 1, wherein said special purpose digital device is an Application Specific Integrated Circuit (ASIC).

3. The method of Claim 1, wherein said output device is a printing apparatus.

4. The method of Claim 1, wherein the steps are subsumed by a franking machine.

5. The method of Claim 4, wherein at least a portion of said calculations are used to establish a postage amount for a prospective item to be mailed.
6. The method of Claim 1, wherein said digital image comprises postage indicia.
7. The method of Claim 1, further comprising the steps of:
 - e) grouping said digital image into at least a first output region and a second output region, wherein said second output region contains at least some image information needing calculations prior to outputting;
 - f) outputting and reproducing information corresponding to said first output region on an output medium moving relative to said output device, wherein at least initial output positions in said first output region are reached before said second output region;
 - g) performing step d) contemporaneously with step f); and
 - h) outputting and reproducing calculated information corresponding to said second region after at least a portion of said first region.
8. The method of Claim 6, wherein said moving medium comprises the surface of a postal flat.
9. The method of Claim 6, wherein said moving medium comprises a mailing label.

10. The method of Claim 3, wherein said printing apparatus is of the ink jet variety, said method further comprising the step of:

for an output resolution lower than the printing apparatus limit, increasing the density of each output pixel by printing in each pixel location, more than one printing drop.

11. A system adapted to convert and reproduce in a sequential manner, a digital image, said system comprising:

a system processor;

a system bus;

a special purpose digital bus coupled to said system processor via said system bus; and

an output device directly coupled to said special purpose digital device via a non-system bus coupling, said output device adapted to output digital image information in a user-perceivable form;

wherein said system processor is adapted to sequentially download information representing said digital image to said special purpose digital device, and is adapted to, if necessary, and contemporaneously with sequentially download information representing said digital image to said special purpose digital device, perform calculations needed to define at least a portion of said digital image; and

wherein said special purpose digital device is adapted to control the operation of said output device.

12. The system of Claim 11, wherein said special purpose digital device is an Application Specific Integrated Circuit (ASIC).

13. The system of Claim 11, wherein said output device is a printing apparatus.

14. The system of Claim 11, wherein the components are subsumed by a franking machine.

15. The system of Claim 14, wherein at least a portion of said calculations are used to establish a postage amount for a prospective item to be mailed.

16. The system of Claim 11, wherein said digital image comprises postage indicia.

17. The system of Claim 11, further defined as:

wherein said system processor is further adapted to group said digital image into at least a first output region and a second output region, wherein said second output region contains at least some image information needing calculations prior to outputting;

wherein said output device is further adapted to output and reproduce information corresponding to said first output region on an output medium moving relative to said output device, wherein at least initial output positions in said first output region are reached before said second output region;

wherein said system processor is further adapted to perform calculations contemporaneously with said output device outputting at least initial output positions in said first output region; and

wherein said output device is further adapted to output and reproduce calculated information corresponding to said second region after at least a portion of said first region.

18. The system of Claim 16, wherein said moving medium comprises the surface of a postal flat.

19. The system of Claim 16, wherein said moving medium comprises a mailing label.

20. The system of Claim 13, wherein said printing apparatus is of the ink jet variety, and said special purpose digital device and said printing apparatus cooperating and adapted to, for an output resolution lower than the printing apparatus limit, increase the density of each output pixel by printing in each pixel location, more than one printing drop.

21. A method of converting and reproducing in a sequential manner, a digital image comprising the steps of:

a) Calculating the information representing said digital image by the system processor and storing it into a RAM;

b) sequentially downloading information from the RAM into the special purpose digital device controlled by the special purpose digital device;

c) outputting digital image information in a user-perceivable form via an output device directly coupled to said special purpose digital device via a non-system bus coupling;

d) directly controlling the operation of said output device by said special purpose digital device; and

e) if necessary, contemporaneously with step a), performing calculations needed to define at least a portion of said digital image by said system processor.

22. The method of Claim 21, further comprising the steps of:

f) grouping said digital image into at least a first output region and a second output region, wherein said second output region contains at least some image information needing calculations prior to outputting;

g) outputting and reproducing information corresponding to said first output region on an output medium moving relative to said output device, wherein at least initial output positions in said first output region are reached before said second output region;

h) performing step e) contemporaneously with step g); and

i) outputting and reproducing calculated information corresponding to said second region after at least a portion of said first region.

23. A system adapted to convert and reproduce in a sequential manner, a digital image, said system comprising:

a system processor;

a system bus;

a special purpose digital bus coupled to said system processor via said system bus; and

an output device directly coupled to said special purpose digital device via a non-system bus coupling, said output device adapted to output digital image information in a user-perceivable form;

wherein said system processor is adapted to calculate the information and store it into the RAM and is adapted to, if necessary, and contemporaneously with sequentially download information representing said digital image to said special purpose digital device, perform calculations needed to define at least a portion of said digital image; and

wherein said special purpose digital device is adapted to control the operation of said output device and to sequentially download information representing said digital image from the RAM into this special purpose digital device, operation controlled by this special purpose digital device.